UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/749,993	12/31/2003	Laurence Rose	134164	9989

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EXAMINER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/749,993	ROSE ET AL.
	Examiner	Art Unit	
	Michael C. Lai	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _31 December 2003_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-21_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-21_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _31 December 2003_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Priority

This application has no priority claim made. The filing date is 12/31/2003.

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed
> publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2.   Claims 1, 4-5, 10, 13-14, are rejected under 35 U.S.C. 102(a) as being

anticipated by Tonnby et al. (WO 03/067821 A1), hereinafter referred to as Tonnby.

3.   Regarding claim 1, Tonnby discloses: In a network including a switching node

having a plurality of ports (FIG. 12), a method for dynamically associating one of the

ports to a virtual local area network (VLAN) based on a VLAN membership of a device

connected to the port, the method comprising: receiving a command associating the

device to the VLAN (page 2, lines 8-10: The users can select services by configuring

their apparatuses to a selected one of the VLAN:S.); transmitting to the plurality of ports

in response to the command, a first message configured to generate a response by the

device (page 4, lines 4-7: The access system has a broadcast handler system and

broadcast messages involved in service access or service use are picked up by this

system in the penult hosting the user port.); receiving at a particular port, a second

message from the device responsive to the first message (page 14, lines 8-13: The user

device UD11 utilizes in conventional manner an ARP request (Address Resolution

Protocol) to get a MAC address to the IP address IPSA1. The user device UD11

therefore transmits broadcast the ARP message which is received by the handler H1 in

the penult P1 via the user port UP11.); identifying the port receiving the second

message (page 13, lines 3-8: The handler H1, that gets the frame FR2 via the port

UP11, adds the identification for this port It then packs the port identification together

with the frame FR2 as a unicast message U1, see FIG. 2, and sends this message to

the broadcast handler BH1 in the edge access server EAS.); and associating the

identified port to the VLAN associated with the device (FIG. 8 and page 14, lines 27-29:

The register REG11 only comprises the penult's own user ports UP11, UP12 and UP13

on respective lists PL11, PL12 and PL13 and the VLAN tags.).

4.   Regarding claim 4, Tonnby further discloses: storing a list of addresses learned

on the identified port (FIG. 5, and page 10, lines 24-26: Gradually, when the users U11-

Um1 send their information, the administrative unit AD1 will build up the register REG1

in the broadcast handler BH1, as shown in FIG. 5.).

5.   Regarding claim 5, Tonnby further discloses: the second message includes an

address associated with the device, the method further comprising including the

address in the list of addresses learned on the identified port (FIG. 7, table TAB1, and

page 13, lines 18-21: the information includes the own port address SAMAC1, the

VLAN tag TAG1, a subnet mask SM1, the user MAC address UMAC1 and the service

agent's own IP address, IPSA1.).

6.   Regarding claim 10, Tonnby discloses: A switching node comprising: a port

coupled to a device associated with a virtual local area network (VLAN) (FIG. 12);

means for receiving a command associating the device to the VLAN (page 2, lines 8-10:

The users can select services by configuring their apparatuses to a selected one of the

VLAN:S.); means for transmitting to the port in response to the command, a first

message configured to generate a response by the device (page 4, lines 4-7: The

access system has a broadcast handler system and broadcast messages involved in

service access or service use are picked up by this system in the penult hosting the

user port); means for receiving at the port, a second message from the device

responsive to the first message (page 14, lines 8-13: The user device UD11 utilizes in

conventional manner an ARP request (Address Resolution Protocol) to get a MAC

address to the IP address IPSA1. The user device UD11 therefore transmits broadcast

the ARP message which is received by the handler H1 in the penult P1 via the user port

UP11.); means for identifying the port receiving the second message (page 13, lines 3-

8: The handler H1, that gets the frame FR2 via the port UP11, adds the identification for

this port It then packs the port identification together with the frame FR2 as a unicast

message U1, see FIG. 2, and sends this message to the broadcast handler BH1 in the

edge access server EAS.); and means for associating the identified port to the VLAN

associated with the device (FIG. 8 and page 14, lines 27-29: The register REG11 only

comprises the penult's own user ports UP11, UP12 and UP13 on respective lists PL11,

PL12 and PL13 and the VLAN tags).

7.   Regarding claim 13, Tonnby further discloses: means for storing a list of

addresses learned on the identified port (FIG. 5, and page 10, lines 24-26: Gradually,

when the users U11-Um1 send their information, the administrative unit AD1 will build

up the register REG1 in the broadcast handler BH1, as shown in FIG. 5.).

8.   Regarding claim 14, Tonnby further discloses: the second message includes an

address associated with the device, the switching node further comprising means for

including the address in the list of addresses learned on the identified port (FIG. 7, table

TAB1, and page 13, lines 18-21: the information includes the own port address

SAMAC1, the VLAN tag TAG1, a subnet mask SM1, the user MAC address UMAC1

and the service agent's own IP address, IPSA1.).

Claim Rejections - 35 USC § 103

9.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

10.   Claims 2-3 and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Tonnby as applied to claim 1 above, and in view of Rueda et al. (US 2002/0112076

A1), hereinafter referred to as Rueda.

11.   Regarding claims 2-3 and 11-12, Tonnby doesn't disclose that the device is a

silent device or a printer. However, Rueda discloses a network printing method (FIG.

23 and paragraph 0217: a network printer must support a network interface card so that

it can be directly connected to the LAN, and have multiprotocol support – the ability to

handle print jobs on top of different network protocols.). It would have been obvious to

one of ordinary skill in the art at the time of the invention to incorporate the teaching of

Rueda into Tonnby' method to have a silent device, like a printer, in the network. The

motivation would be convenience, e.g., for people traveling outside their office to be

able to send print jobs to a hotel printer.

12.   Claims 6-9, 15-18, and 19-21 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Tonnby in view of Rueda, and further in view of Berlovitch et al. (US

6.061,334), hereinafter referred to as Berlovitch.

13.   Regarding claims 6 and 15, Tonnby and Rueda disclose: determining whether

the device associated with the address is a silent device configured to respond to traffic

transmitted by another device but not configured to initiate traffic to other devices

(Rueda, FIG. 23 and paragraph 0217: a network printer must support a network

interface card so that it can be directly connected to the LAN, and have multiprotocol

support – the ability to handle print jobs on top of different network protocols);

transmitting to the plurality of ports based on the determination, a third message

configured generate a response by the device (page 4, lines 4-7: The access system

has a broadcast handler system and broadcast messages involved in service access or

service use are picked up by this system in the penult hosting the user port); receiving

at a second port, a fourth message from the device responsive to the third message

(page 14, lines 8-13: The user device UD11 utilizes in conventional manner an ARP

request (Address Resolution Protocol) to get a MAC address to the IP address IPSA1.

The user device UD11 therefore transmits broadcast the ARP message which is

received by the handler H1 in the penult P1 via the user port UP11); identifying the

second port receiving the fourth message (page 13, lines 3-8: The handler H1, that gets

the frame FR2 via the port UP11, adds the identification for this port It then packs the

port identification together with the frame FR2 as a unicast message U1, see FIG. 2,

and sends this message to the broadcast handler BH1 in the edge access server EAS);

and associating the second port to the VLAN associated with the device (FIG. 8 and

page 14, lines 27-29: The register REG11 only comprises the penult's own user ports

UP11, UP12 and UP13 on respective lists PL11, PL12 and PL13 and the VLAN tags).

14.   Tonnby and Rueda do not disclose: detecting a triggering event removing the

address associated with the device from the list of addresses learned on the identified

port. However, Berlovitch discloses an apparatus to monitor and update changes in the

configuration of the network (col. 7, lines 55-64, and col. 25, lines 41-53. The monitoring

and updating are for both physical and logical changes in the network.).

15.   It would have been obvious to one of ordinary skill in the art at the time of the

invention to incorporate the teaching of Berlovitch into Tonnby's and Rueda's method to

monitor and update network configuration changes. The motivation would be to keep

network configuration up-to-date and better management of network resources.

16.   Regarding claim 19, together Tonnby, Rueda and Berlovitch disclose: A

switching node comprising: one or more ports receiving and transmitting data units

(Tonnby FIG. 12); a first table storing a list of addresses learned on the one or more

ports (Tonnby FIG. 5, register REG1); a first module coupled to the first table (Tonnby

FIG. 2, broadcast handler BH1); and a second module coupled to the first module,

characterized in that the first module detects a triggering event, removes an address

from the list of addresses stored in the first table based on the triggering event

(Berlovitch col. 7, lines 55-64, and col. 25, lines 41-53. The monitoring and updating are for both physical and logical changes in the network), determines whether the address is associated with a silent device configured to respond to traffic transmitted by another device but not configured to initiate traffic to other devices (Rueda, FIG. 23 and paragraph 0217: a network printer must support a network interface card so that it can be directly connected to the LAN, and have multiprotocol support – the ability to handle print jobs on top of different network protocols), and forwards the address to the second module based on the determination, further characterized in that the second module transmits to the one or more ports a first message configured to generate a response by the silent device associated with the forwarded address (Tonnby page 4, lines 4-7: The access system has a broadcast handler system and broadcast messages involved in service access or service use are picked up by this system in the penult hosting the user port.), also characterized in that the first module receives at a particular port, a second message from the silent device responsive to the first message (Tonnby page 14, lines 8-13: The user device UD11 utilizes in conventional manner an ARP request (Address Resolution Protocol) to get a MAC address to the IP address IPSA1. The user device UD11 therefore transmits broadcast the ARP message which is received by the handler H1 in the penult P1 via the user port UP11), identifies the particular port receiving the second message (Tonnby page 13, lines 3-8: The handler H1, that gets the frame FR2 via the port UP11, adds the identification for this port It then packs the port identification together with the frame FR2 as a unicast message U1, see FIG. 2, and sends this message to the broadcast handler BH1 in the edge access server EAS),

and associates the identified port to a VLAN associated with the silent device (Tonnby

FIG. 8 and page 14, lines 27-29: The register REG11 only comprises the penult's own

user ports UP11, UP12 and UP13 on respective lists PL11, PL12 and PL13 and the

VLAN tags).

17.   Regarding claims 7-8, 16-17 and 20, Berlovitch further discloses: the triggering

event is a port down event and the port down event is generated in response to the

device being decoupled from the identified port. (col. 36, lines 42-46: A communication

failure. Examples of communication failures include a failed attempt of a NetWare client

end-station to initially connect to a server end-station, and disconnection of a NetWare

client end-station from a server end-station).

18.   Regarding claims 9, 18, and 21, Rueda further discloses: the triggering event is

fulfillment of an ageing time for removing the address (page 23, paragraph 0333: After a

period of inactivity, is safe to delete the appropriate route from the IP routing table.).

Conclusion

        Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Michael C. Lai whose telephone number is (571) 270-

3236. The examiner can normally be reached on M-F 7:30 - 5:00 EST.

        If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Marvin Lateef can be reached on (571) 272-5026. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michael C. Lai
13AUG2007

MARVIN M. LATEEF
SUPERVISORY PATENT EXAMINER